

WHAT IS CLAIMED IS:

1. A method of conducting a business-to-business online auction for custom industrial products or materials between a buyer and a plurality of potential sellers, comprising the steps of:
- (a) offering a first and a second lot, defined at least in part by a buyer, to a plurality of potential sellers, said first and second lots having at least one product;
  - (b) defining a closing time for said first lot before which bids for said first lot are to be submitted by potential sellers;
  - (c) defining a closing time for said second lot before which bids for said second lot must be submitted by a potential seller, said closing time for said second lot being later than said closing time for said first lot by a first time interval;
  - (d) receiving bids from potential sellers for said first lot;
  - (e) extending said closing time of said first lot by an incremental amount of time upon the occurrence of a predetermined lot extension criterion relating to said received bids; and
  - (f) extending said closing time of said second lot if said extended closing time of said first lot precedes said closing time of said second lot by less than a second time interval.

2. The method of claim 1, wherein step (e) comprises the step of determining whether a received bid is better than the best of the previously received bids.

3. The method of claim 2, wherein step (e) comprises the step of determining whether a received bid is the lowest bid.

1 4. The method of claim 1, wherein step (e) comprises the step of determining if a  
2 received bid is within a predetermined amount of a preceding bid.

1 5. The method of claim 1, wherein step (e) comprises the step of determining  
2 whether a bid is received within a third time interval of said first lot closing time.

1 6. The method of claim 1, further including the steps of:  
2 offering a third lot to the plurality of potential sellers;  
3 defining a closing time for said third lot before which bids for said third lot must  
4 be submitted by a potential seller, said closing time for said third lot being later than  
5 said closing time for said second lot by a fourth time interval;  
6 determining whether said extended closing time of said second lot precedes  
7 said closing time of said third lot by less than a fifth time interval; and, if so,  
8 extending said closing time of said third lot.

1 7. A method of conducting an online auction between a buyer and a plurality of  
2 potential sellers, comprising the steps of:  
3 (a) offering a plurality of lots, defined at least in part by a buyer, to a plurality  
4 of potential sellers, each of said plurality of lots having at least one  
5 product;  
6 (b) defining a closing time for each of said plurality of lots, wherein a closing  
7 time for a lot defines a time before which bids for the lot are to be  
8 submitted by a potential seller;  
9 (c) upon the extension of a closing time for a first lot, determining whether a  
10 closing time for a second lot is within a predefined time interval from the  
11 extended closing time of said first lot; and  
12 (d) if the closing time for said second lot is within a predefined time interval  
13 from the extended closing time of said first lot, extending said closing  
14 time of said second lot such that the time between the extended closing

time of said second lot and the extended closing time of said first lot is at least said predefined time interval.

8. The method of claim 7, further comprising the steps of:

upon the extension of a closing time for said second lot, determining whether a closing time for a third lot is within said predefined time interval from the extended closing time of said second lot; and

if the closing time for said third lot is within a predefined time interval from the extended closing time of said second lot, extending said closing time of said third lot such that the time between the extended closing time of said third lot and the extended closing time of said second lot is at least said predefined time interval.

9. A method of conducting a business-to-business online auction for custom industrial products or materials between a buyer and a plurality of potential sellers, comprising the steps of:

- (a) offering a plurality of lots, defined at least in part by a buyer, to a plurality of potential sellers, each of said plurality of lots having at least one product;
- (b) defining a closing time for each of said plurality of lots, wherein a closing time for a lot defines a time before which bids for the lot are to be submitted by a potential seller;
- (c) defining an overtime extension parameter for each of said plurality of lots, said overtime extension parameter indicating a length of an overtime period for an associated lot, wherein an overtime extension parameter for a lot is based upon characteristics of one or more items in the lot;
- (d) determining whether an overtime period is triggered in one of said plurality of lots; and

(e) if an overtime period is triggered in said one of said plurality of lots, extending the auction for said one of said plurality of lots by an amount of time defined by said overtime extension parameter associated with said one of said plurality of lots.

10. The method of claim 9, further comprising the step of storing overtime extension parameters for each of said plurality of lots.

11. The method of claim 9, wherein step (e) comprises the step of adding the value of an overtime extension parameter with a market closing time for a lot.

12. The method of claim 9, further comprising the step of dynamically varying an overtime extension parameter associated with a lot during an auction for the lot.

13. A method of conducting a business-to-business online auction for custom industrial products or materials between a buyer and a plurality of potential sellers, comprising the steps of:

- (a) offering a lot, defined at least in part by a buyer, to a plurality of potential sellers, said lot having at least one product;
- (b) defining a closing time for said lot, wherein said closing time for said lot defines a time before which bids for the lot are to be submitted by a potential seller;
- (c) receiving a first bid from a potential seller for said lot;
- (d) identifying said first bid as a current best bid;
- (e) comparing each successively received bid to said current best bid, and identifying said successive bid as said current best bid if said successive bid is better than said current best bid;
- (f) within a first time interval of said closing time for said lot,

- 15 (i) determining whether a received bid is better than said current  
16 best bid;  
17 (ii) if said received bid is better than said current best bid, identifying  
18 said received bid as said current best bid and extending said  
19 closing time for said first lot by a second time interval;  
20 (iii) if said received bid is not better than said current best bid,  
21 determining whether said received bid satisfies at least one  
22 behind-market bid lot extension criteria; and  
23 (iv) if said received bid satisfies at least one behind-market bid lot  
24 extension criteria, extending said closing time for said first lot by a  
25 third time interval.

1 14. The method of claim 13, wherein said second time interval is equal to said third  
2 time interval.

1 15. The method of claim 13, wherein step (f)(iii) comprises the step of determining  
2 whether said received bid is received within a fourth time interval of said closing time.

1 16. The method of claim 13, wherein step (f)(iii) comprises the step of determining  
2 whether said received bid is within a predefined percentage of said current best bid.

1 17. The method of claim 16, wherein step (f)(iii) comprises the step of storing a  
2 percentage parameter in memory.

1 18. The method of claim 13, wherein step (f)(iii) comprises the step of determining  
2 whether said received bid is higher than said current best bid by a selected amount.

1 19. The method of claim 18, wherein step (f)(iii) comprises the step of storing a  
2 price distance parameter in memory.

1 20. The method of claim 16, wherein step (f)(iii) comprises the step of determining  
2 whether said received bid is from an incumbent supplier.

1 21. The method of claim 20, wherein the step (f)(iii) comprises the step of storing  
2 an incumbent supplier parameter in memory.

1 22. The method of claim 13, wherein step (f)(iii) comprises the step of determining  
2 whether said received bid is within a predefined number of rank ordinal positions of  
3 said current best bid.

1 23. The method of claim 22, wherein step (f)(iii) comprises the step of storing an  
2 ordinal position parameter in memory.

1 24. A method of conducting an online auction between a buyer and a plurality of  
2 potential sellers, comprising the steps of:

- 3 (a) offering a lot, defined at least in part by a buyer, to a plurality of potential  
4 sellers, said lot having at least one product;
- 5 (b) defining a closing time for said lot, wherein said closing time for said lot  
6 defines a time before which bids for the lot are to be submitted by a  
7 potential seller;
- 8 (c) within a first time interval of said closing time for said lot, determining if a  
9 received bid satisfies at least one behind-market bid lot extension  
10 criteria, wherein said at least one behind-market bid lot extension criteria  
11 can be satisfied if said received bid is not better than a current best bid;  
12 and
- 13 (d) if said received bid satisfies at least one behind-market bid lot extension  
14 criteria, extending said closing time for said first lot by a second time  
15 interval.

1 25. The method of claim 24, wherein step (d) comprises the step of determining  
2 whether said received bid is received within a third time interval of said closing time.

1 26. The method of claim 24, wherein step (d) comprises the step of determining  
2 whether said received bid is within a predefined percentage of said current best bid.

1 27. The method of claim 26, wherein step (d) comprises the step of storing a  
2 percentage parameter in memory.

1 28. The method of claim 24, wherein step (d) comprises the step of determining  
2 whether said received bid is higher than said current best bid by a selected amount.

1 29. The method of claim 28, wherein step (d) comprises the step of storing a price  
2 distance parameter in memory.

1 30. The method of claim 24, wherein step (d) comprises the step of determining  
2 whether said received bid is from an incumbent supplier.

1 31. The method of claim 30, wherein step(d) comprises the step of storing an  
2 incumbent supplier parameter in memory.

1 32. The method of claim 24, wherein step (d) comprises the step of determining  
2 whether said received bid is within a predefined number of rank ordinal positions of  
3 said current best bid.

1 33. The method of claim 32, wherein step (d) comprises the step of storing an  
2 ordinal position parameter in memory.

1 34. A bidding method in an auction between a buyer and a plurality of potential  
2 sellers, comprising the steps of:

- 3 (a) receiving initial line item bids for individual line items in a lot of products,  
4 at least one of said initial line item bids including a locked portion and an  
5 unlocked portion;  
6 (b) calculating an initial lot bid price using said initial line item bids;  
7 (c) receiving an adjustment to the total bid for a lot;  
8 (d) calculating line item price adjustments using said lot bid adjustment,  
9 wherein line item price adjustments are made on a pro rata basis to the  
10 unlocked portions of said initial line item bids; and  
11 (e) calculating an updated lot bid price using said line item adjustments.

1 35. The method of claim 34, wherein step (c) comprises the step of receiving  
2 information representing a price adjustment for said initial lot bid price.

1 36. The method of claim 34, wherein step (c) comprises the step of receiving  
2 information representing a percentage reduction in said initial lot bid price.

1 37. The method of claim 34, wherein step (a) comprises the step of receiving an  
2 initial line item bid for a line item having only a locked portion.

1 38. The method of claim 34, wherein step (a) comprises the step of receiving an  
2 initial line item bid for a line item having only an unlocked portion.

1 39. The method of claim 34, further comprising the step of determining whether  
2 said lot bid adjustment exceeds a sum of all of the unlocked portions in said initial line  
3 item bids.



1 40. The method of claim 34, further comprising the step of unlocking at least part of  
2 a locked portion of a line item bid.

1 41. The method of claim 34, further comprising the step of storing locked and  
2 unlocked portions of each of said line item bids.

1 42. A computer program product for enabling a processor in a computer system to  
2 process bidding information in an auction between a buyer and a plurality of potential  
3 sellers, said computer program product comprising:

4 a computer usable medium having computer readable program code means  
5 embodied in said medium for causing an application program to execute on the

6 computer system, said computer readable program code means comprising

7 a first computer readable program code means for enabling the  
8 computer system to receive initial line item bids for individual line items in a lot  
9 of products, at least one of said initial line item bids including a locked portion  
10 and an unlocked portion;

11 a second computer readable program code means for enabling the  
12 computer system to calculate an initial lot bid price using said initial line item  
13 bids;

14 a third computer readable program code means for enabling the  
15 computer system to receive a lot bid adjustment;

16 a fourth computer readable program code means for enabling the  
17 computer system to calculate line item price adjustments using said lot bid  
18 adjustment, wherein line item price adjustments are made on a pro rata basis to  
19 the unlocked portions of said initial line item bids; and

20 a fifth computer readable program code means for enabling the  
21 computer system to calculate an updated lot bid prices using said line item  
22 adjustments.

1 43. The computer program product of claim 42, wherein said lot bid adjustment is  
2 a price adjustment in said initial lot bid price.

1 44. The computer program product of claim 42, wherein said lot bid adjustment is a  
2 percentage reduction in said initial lot bid price.

1 45. The computer program product of claim 42, wherein a line item bid for a line  
2 item has only a locked portion.

1 46. The computer program product of claim 42, wherein a line item bid for a line  
2 item has only an unlocked portion.

1 47. The computer program product of claim 42, further comprising computer  
2 readable program code means for enabling the computer system to determine  
3 whether said lot bid adjustment exceeds a sum of all of the unlocked portions in said  
4 initial line item bids.

1 48. The computer program product of claim 42, further comprising computer  
2 readable program code means for enabling the computer system to unlock at least  
3 part of a locked portion of a line item bid.

1 49. The computer program product of claim 42, further comprising computer  
2 readable program code means for enabling the computer system to store locked and  
3 unlocked portions of each of said line item bids.

1 50. A bidding method in an on-line auction, comprising the steps of:  
2 (a) defining a flexible line item decision rule, said flexible line item decision rule  
3 being created to accommodate a pre-auction bidding strategy relating to one or more  
4 aspects of a line item portion of a bid for a lot of products;

5 (b) receiving information specifying a bid for a lot of products, said bid including  
6 a plurality of line item portions for corresponding line items in said lot of products;

7 (c) receiving information specifying an adjustment to one or more aspects of  
8 said bid for said lot of products;

9 (d) analyzing said adjustment to said one or more aspects of said bid for said  
10 lot of products based on said flexible line item decision rule to determine a  
11 corresponding adjustment to one or more aspects of one or more line item portions of  
12 said bid; and

13 (e) effecting said corresponding adjustment to said one or more aspects of said  
14 one or more line item portions of said bid based upon the analysis of step (d).

1 51. The method of claim 50, wherein step (a) comprises the step of defining a  
2 locked portion and an unlocked portion for one or more line item portions of said bid.

1 52. The method of claim 51, wherein step (d) comprises the step of calculating line  
2 item price adjustments using a lot bid adjustment, wherein line item price adjustments  
3 are made on a pro rata basis to the unlocked portions of the line item portions of said  
4 bid.

1 53. A method of conducting a business-to-business online auction for custom  
2 industrial products or materials between a buyer and a plurality of potential sellers,  
3 comprising the steps of:

4 (a) offering a lot, defined at least in part by a buyer, to a plurality of potential  
5 sellers, said lot having at least one product;

6 (b) setting a bidding status for said lot to a first bidding status indicating that  
7 the buyer will accept bids from the potential sellers on said lot;

8 (c) receiving bids from potential sellers for said lot;

9 (d) upon closing of said lot, changing said bidding status for said lot from  
10 said first status to a second status indicating that the buyer will not

- 11 accept bids from a potential seller on said lot of products but that said  
12 bidding status may be subsequently changed to said first bidding status;  
13 (e) determining whether a return to open trigger event has occurred within a  
14 predetermined time period following the changing of said bidding status  
15 from said first status to said second status;  
16 (f) if said return to open trigger event has not occurred, setting said bidding  
17 status to a third bidding status indicating that the buyer will no longer  
18 accept bids from the potential sellers on said lot of products; and  
19 (g) if said return to open trigger event has occurred, returning said bidding  
20 status for said lot to said first bidding status.

54. The method of claim 53, wherein step (e) comprises the step of receiving a  
communication from a potential seller indicating a request for an opportunity to submit  
a further bid.

55. The method of claim 53, wherein step (g) comprises the step of returning said  
bidding status for said lot to said first bidding status after auctions on other lots have  
closed.

56. The method of claim 53, further comprising the steps of:  
storing a first value that specifies the length of time that said lot will remain in  
said second bidding status; and  
storing a second value that specifies whether said lot should automatically be  
changed to said third bidding status upon the expiration of the length of time specified  
by said first value.

57. A method of conducting a business-to-business online auction for custom  
industrial products or materials between a buyer and a plurality of potential sellers,  
comprising the steps of:

- 4 (a) offering a lot, defined at least in part by a buyer, to a plurality of potential  
5 sellers, said lot having at least one product;  
6 (b) defining a closing time for said lot before which bids for said lot are to be  
7 submitted by potential sellers;  
8 (c) setting a bidding status for said lot to a first status indicating that the  
9 buyer will accept bids from potential sellers of said lot;  
10 (d) determining whether an auction pausing event has occurred;  
11 (e) if an auction pausing event has occurred, changing said bidding status  
12 for said lot from said first status to a paused status indicating that the  
13 buyer will not accept bids from the potential sellers on said lot and that  
14 all existing bids for said lot are preserved;  
15 (f) altering said closing time for said lot during said paused status for said  
16 lot; and  
17 (g) changing said bidding status for said lot from said paused status to said  
18 first status once said auction pausing event has been corrected.

1 58. The method of claim 57, wherein step (d) comprises the step of receiving a  
2 notification from a potential seller.

1 59. The method of claim 57, wherein step (f) comprises the step of receiving input  
2 from an auction coordinator that identifies an alteration in said closing time.

1 60. A method of conducting a business-to-business online auction for custom  
2 industrial products or materials between a buyer and a plurality of potential sellers,  
3 comprising the steps of:

- 4 (a) offering a plurality of lots, defined at least in part by a buyer, to a plurality  
5 of potential sellers, each of said plurality of lots having at least one  
6 product;  
7 (b) defining an opening and a closing time for each of said plurality of lots;



1 67. The method of claim 60, wherein step (e) comprises the step of altering an  
2 opening time or a closing time for each of said plurality of lots.

1 68. The method of claim 60, wherein step (f) comprises the step of changing said  
2 bidding status from a paused status to an available status.

1 69. The method of claim 60, wherein step (f) comprises the step of changing said  
2 bidding status from a paused status to an open status.

1 70. The method of claim 60, wherein step (f) comprises the step of changing said  
2 bidding status from a paused status to an extended status.

1 71. A method of conducting an online auction for custom industrial products or  
2 materials between a buyer and a plurality of potential sellers, comprising the steps of:

- 3 (a) setting an individual bid ceiling for each of a plurality of potential sellers,  
4 wherein an individual bid ceiling for at least one of said plurality of  
5 potential sellers is different from an individual bid ceiling for another of  
6 said plurality of potential sellers;  
7 (b) receiving bids from one or more potential sellers;  
8 (c) determining whether a received bid for a potential seller is greater than a  
9 corresponding individual bid ceiling for said potential seller; and  
10 (d) if said received bid is greater than said individual bid ceiling for said  
11 potential seller, communicating to said potential seller that said received  
12 bid is invalid.

1 72. The method of claim 71, wherein step (a) includes the step of setting an  
2 individual bid ceiling based on price discovery prior to the start of the auction.

1 73. The method of claim 71, wherein step (a) includes the step of setting an  
2 individual bid ceiling based on the potential seller's previous offline bid.

1 74. A method of conducting an auction, comprising the steps of:

- 2 (a) setting an individual bid floor for each of a plurality of potential bidders,  
3 wherein an individual bid floor for at least one of said plurality of potential  
4 bidders is different from an individual bid floor for another of said plurality  
5 of potential bidders;  
6 (b) receiving bids from one or more potential bidders;  
7 (c) determining whether a received bid for a potential bidder is less than a  
8 corresponding individual bid floor for said potential bidder; and  
9 (d) if said received bid is less than said individual bid floor for said potential  
10 bidder, communicating to said potential bidder that said received bid is  
11 invalid.

1 75. The method of claim 74, wherein step (a) includes the step of setting an  
2 individual bid floor based on price discovery prior to the start of the auction.

1 76. The method of claim 74, wherein step (a) includes the step of setting an  
2 individual bid floor based on the potential bidder's previous offline bid.

1 77. A method of conducting an online auction between a plurality of bidders,  
2 comprising the steps of:

- 3 (a) offering a lot, defined at least in part by an originator, to a plurality of  
4 potential bidders, said lot having at least one product;  
5 (b) receiving a bid from a bidder for said lot, said bid being confirmed by  
6 said bidder prior to submission;  
7 (c) determining whether said bid price on said lot passes at least one bid  
8 failsafe criteria, said at least one bid failsafe criteria incorporating



9 system-based intelligence to determine whether said bid price on said lot  
10 is a permissible bid in view of previously received bids; and

- 11 (d) if said bid price on said lot fails said at least one bid failsafe criteria,  
12 implementing a pre-defined consequence that is associated with said at  
13 least one bid failsafe criteria.

1 78. The method of claim 77, wherein step (c) comprises the step of comparing said  
2 bid price to a previous bid by said bidder.

1 79. The method of claim 78, wherein step (c) comprises the step of determining  
2 whether said bid price is within a predefined percentage of a previous bid by said  
3 bidder.

1 80. The method of claim 77, wherein step (c) comprises the step of comparing said  
2 bid price to a historical lot price.

1 81. The method of claim 80, wherein step (c) comprises the step of determining  
2 whether said bid price meets a threshold defined by a historical lot price.

1 82. The method of claim 77, wherein step (c) comprises the step of comparing said  
2 bid price to a market leading bid price.

1 83. The method of claim 82, wherein step (c) comprises the step of determining  
2 whether said bid price is within a predefined percentage of a market leading bid price.

1 84. The method of claim 77, wherein step (d) comprises the step of preventing said  
2 bid price from being submitted.

1 85. A method of conducting an auction between a plurality of bidders, comprising  
2 the steps of:

3 (a) offering a lot, defined at least in part by an originator, to a plurality of  
4 potential bidders, said lot having at least one product;

5 (b) defining a closing time for said lot, wherein said closing time for said lot  
6 defines a time before which bids for the lot are to be submitted by a  
7 potential bidder;

8 (a) receiving bids from potential bidders for said lot;

9 (b) determining whether an erroneous bid has been submitted by a bidder;

10 (c) if an erroneous bid has been submitted, deleting in real-time an  
11 erroneous bid and any consequential bids of said erroneous bid from the  
12 auction; and

13 (d) communicating with potential bidders that said erroneous bid and said  
14 consequential bids have been deleted from the auction.

1 86. The method of claim 85, wherein step (b) comprises the step of receiving a  
2 communication from a bidder that a submitted bid is in error.

1 87. The method of claim 85, wherein step (c) comprises the step of deleting bids  
2 from the auction based upon input from an auction coordinator.

1 88. The method of claim 85, wherein step (d) comprises the step of causing a  
2 message dialog box to be displayed to the potential bidders.

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